

Additional Subsurface Investigation Report

CHA Project Number: 8423

Prepared for:



SOLVENTS & PETROLEUM
SERVICE

Experts in chemicals. Partners in business.

1405 Brewerton Road · Syracuse, NY 13208 · 315-454-4467 · www.solventsandpetroleum.com

Prepared by:



441 South Salina Street
Syracuse, New York 13202

Phone: (315) 471-3920

Fax: (315) 471-3569

February 28, 2014

TABLE OF CONTENTS

1.0	Introduction.....	1
1.1	Site History	1
1.2	Site Geology.....	2
2.0	Scope of Work	3
2.1	Subsurface Investigation.....	3
2.2	Semi-Annual Groundwater Monitoring.....	4
3.0	Field Observations	5
4.0	Analytical Results	6
5.0	Conclusions.....	7

LIST OF FIGURES

Figure 1.	Site Location Map
Figure 2.	Boring Location Map
Figure 3.	Concentration vs. Time- MW-1S

LIST OF APPENDICES

Appendix A.	Field Logs
Appendix B	Laboratory Data

1.0 INTRODUCTION

Groundwater monitoring has been ongoing at the Solvents and Petroleum Service's Inc. (SPS) facility located at 1405 Brewerton Road in Syracuse, New York for approximately 20 years. In 2006, monitoring was discontinued in two (2) out of the four (4) on-site monitoring wells. Based upon the review of all data available for the site, the site setting, and the low threat to human health and the environment, on behalf of SPS, CHA requested in April 2013 that the remaining groundwater monitoring program be terminated and that no further action be required. Additional questions were raised by the New York State Department of Environmental Conservation (NYSDEC), particularly in regard to the source of contamination observed in well MW-1S. In response, CHA, on behalf of SPS, prepared a Work Plan that was reviewed and approved by the NYSDEC. CHA implemented the work plan on December 16, 2013, focused on an area up-gradient of this well. A site location map is included as Figure 1.

1.1 SITE HISTORY

Historically, solvents and petroleum products have been handled at the property located at 1405 Brewerton Road in the Town of Salina, New York since the 1950s. A gasoline station was also located on site from approximately the 1940s to the early 1970s. Reportedly, the underground storage tanks associated with the gasoline storage were removed at the time the station was closed.

Solvents and Petroleum Service purchased the property in 1977. Since that time, SPS has been a distributor of virgin solvents. In 1979, SPS expanded their business to collect and store spent solvents. These materials are classified as hazardous wastes. No disposal of hazardous wastes occurs on site.

There have been no reported releases of hazardous substances in the last five years. In fact, SPS has had no reportable releases since 1988. The releases which occurred prior to 1988 involved less than 100 gallons of solvents and SPS made efforts to contain and cleanup the spills. Because of these reported spills and the historical uses of the property, the impact to groundwater quality has been under investigation since the early 1990s.

1.2 SITE GEOLOGY

The site geology has been investigated and summarized in a number of previous reports. Most portions of the site are underlain by fill. Where fill materials are absent, the subsurface deposits consist of silts and fine sands to a depth of approximately 20 feet below grade at the southern portion of the site (MW-1S) and up to 30 feet below grade at the northern end of the site. A dense glacial till underlies the silt and sand deposits encountered at that depth. Depth to groundwater on the SPS site is approximately 4 to 5 feet below grade. The till is considered to have a very low permeability. Previous investigations on the site also indicate that groundwater velocity beneath the site is relatively slow at approximately 35 feet/year. Groundwater primarily flows in a northwesterly direction across the site toward Old Ley Creek.

2.0 SCOPE OF WORK

2.1 SUBSURFACE INVESTIGATION

To investigate the potential for an up-gradient source of contamination, CHA planned to advance 4 soil borings on the east side of Brewerton Road. Because this property is privately owned, CHA planned to conduct the investigation in the Right of Way controlled by the New York State Department of Transportation. A temporary high way work permit was granted by the NYSDOT.

CHA retained NYEG Drilling LLC of Brewerton, New York to perform the drilling work. A total of four (4) soil borings were advanced using hydraulic push (Geoprobe®) drilling techniques to a maximum depth of 16 feet below ground surface (bgs). It is noted that refusal was encountered at 12 feet at two (2) locations due to very compact soils. Soil samples were collected continuously and screened in the field for visual, olfactory, and photoionic evidence of contamination.

A total of four (4) soil samples were collected from the site and submitted to TestAmerica Analytical Laboratories (TAL) in Amherst, NY (NYS ELAP Certification# 10026) for analysis of Target Compound List (TCL) volatile organic compounds (VOCs) and MTBE via EPA Method 8260, and TCL semi-volatile organic compounds (SVOCs) via EPA Method 8270. It is important to note that historically, the primary contaminants detected in well MW-1S included benzene, toluene, ethylbenzene, and total xylenes (BTEX). No quality assurance/quality control (QA/QC) samples were required by the NYSDEC for this monitoring event with the exception of one trip blank collected for VOC analysis.

All non-disposable, down-hole equipment (e.g. MacroCore® sampler) was decontaminated between sampling locations to prevent possible cross-contamination. Decontamination water was discharged onto the ground.

After the collection of the soil sample, the borings were converted to temporary monitoring wells which were constructed with one-inch diameter PVC riser pipe and well screen. The well screens had a slot opening size of 0.010-inches and the screen was inserted directly into the open boring to collect a groundwater sample. CHA collected one (1) groundwater sample from each well using disposable polyethylene and silicone tubing and a peristaltic pump the same day that the wells were installed. The wells were not purged and there were no groundwater quality parameters collected due

to the temporary nature of the wells. The groundwater samples were analyzed for the same VOC and SVOC parameters as the soil samples. No quality assurance/quality control (QA/QC) samples were required by the NYSDEC for this monitoring event with the exception of one trip blank collected for VOC analysis.

The locations of the borings and groundwater monitoring wells are shown on Figure 2 (attached).

2.2 SEMI-ANNUAL GROUNDWATER MONITORING

At the same time the investigation was being conducted on the east side of Brewerton Road, CHA also conducted the winter semi-annual groundwater monitoring event at the existing SPS facility. That work is summarized in a report submitted under separate cover.

3.0 FIELD OBSERVATIONS

The soils observed in the four borings were noted to be primarily sand and silt with gravel observed in the upper layers. The soils became denser and more compact with depth. Groundwater was generally encountered at approximately four (4) feet bgs during drilling activities. The boring logs for the site are included as Attachment A.

During the course of the boring and well installations, there was no significant evidence of fill material, nor was there any visual, olfactory, or photoionic evidence of soil contamination in the on-site borings. Photoionization detector (PID) readings for both direct readings off of the soil samples and headspace readings were all 0.0 parts per million (ppm).

The water removed from the temporary monitoring wells was observed to be very turbid, however there was no odor or sheen observed, and no formal well development or purging occurred.

4.0 ANALYTICAL RESULTS

Tables 1 and 2 summarize the soil and groundwater results as compared to applicable NYS cleanup standards and guidance values. Only the detected compounds are displayed in the tables. The full laboratory data package is included as Appendix B.

The soil results were compared to NYSDEC CP-51 Soil Cleanup Objectives (SCOs). Specifically, CP-51 - Table 2 (utilized for gasoline release sites) was referenced due to the documented petroleum contamination on the adjacent site.

Table 1: Soil Sample Results- Detects Only

			Boring			
Parameter	units	CP-51 Standard	TW-1	TW-2	TW-3	TW-4
methylene chloride	µg/kg	na	16	16	17	16

Table 2: Groundwater Sample Results- Detects Only

			Temporary Well			
Parameter	units	TOGS 1.1.1 Class GA Groundwater Standard	TW-1	TW-2	TW-3	TW-4
acetone	µg/l	50	ND	10	ND	ND

As shown in Tables 1 and 2 above, the only detected parameter in the soil was methylene chloride and only acetone was detected in the groundwater. Methylene chloride does not have an applicable CP-51 SCO assigned. The detection of acetone in the groundwater sample is below NYSDEC TOGS 1.1.1 Class GA groundwater standards. Additionally, both of these parameters are likely the result of laboratory contamination, rather than reflective of field conditions. The laboratory analytical results support the field observations that there is no evidence of significant petroleum contamination in any of the borings/monitoring wells installed as part of the subsurface investigation.

5.0 CONCLUSIONS

Based on the results of this investigation, it appears that the petroleum contamination observed in well MW-1S on the SPS site does not originate from an upgradient source. While the source of the contamination remains uncertain, it is possible that the contamination is associated with the historic presence of underground storage tanks that were removed prior to 1977.

The other pertinent information regarding contamination in MW-1S includes:

- No petroleum compounds have been detected in down-gradient well MW-4R indicating contamination from MW-1S has not reached the perimeter of the site.
- The site is mostly paved with asphalt or concrete and is underlain by low porosity soils consisting of silt and fine sands to a depth of 20-30 feet bgs, that lies above dense glacial till. These conditions inhibit the movement of contaminants through the site soils.
- There are no sensitive receptors in the area with the exception of Old Ley Creek and again, petroleum contamination has not been detected in down-gradient well MW-4R. Natural attenuation is effectively decreasing contaminants presence in the groundwater at locations MW-1S. Total BTEX concentrations have decreased by approximately 75% since the beginning of monitoring activities.
- The concentration of individual BTEX contaminants have shown either a decreasing trend or a stable trend (See Figure 3).

In conclusion, the contamination observed in well MW-1S appears to be the result of historic sources, removed prior to 1977 and the residual contamination continues to slowly attenuate. With no apparent migration off of the property, there is no threat to the environment. SPS again petitions NYSDEC to terminate monitoring of this well.

FIGURES



SOURCE: Bing Maps



441 South Salina Street, Syracuse, NY 13202-4712
www.chacompanies.com

MAP NOT TO SCALE

DATE: November 2013

FIGURE 1
Site Location
SOLVENTS AND PETROLEUM SERVICES INC.
1405 BREWERTON ROAD
TOWN OF SALINA
ONONDAGA COUNTY, STATE OF NEW YORK



SOURCE: NYS Orthos Online



441 South Salina Street, Syracuse, NY 13202-4712
www.chacompanies.com

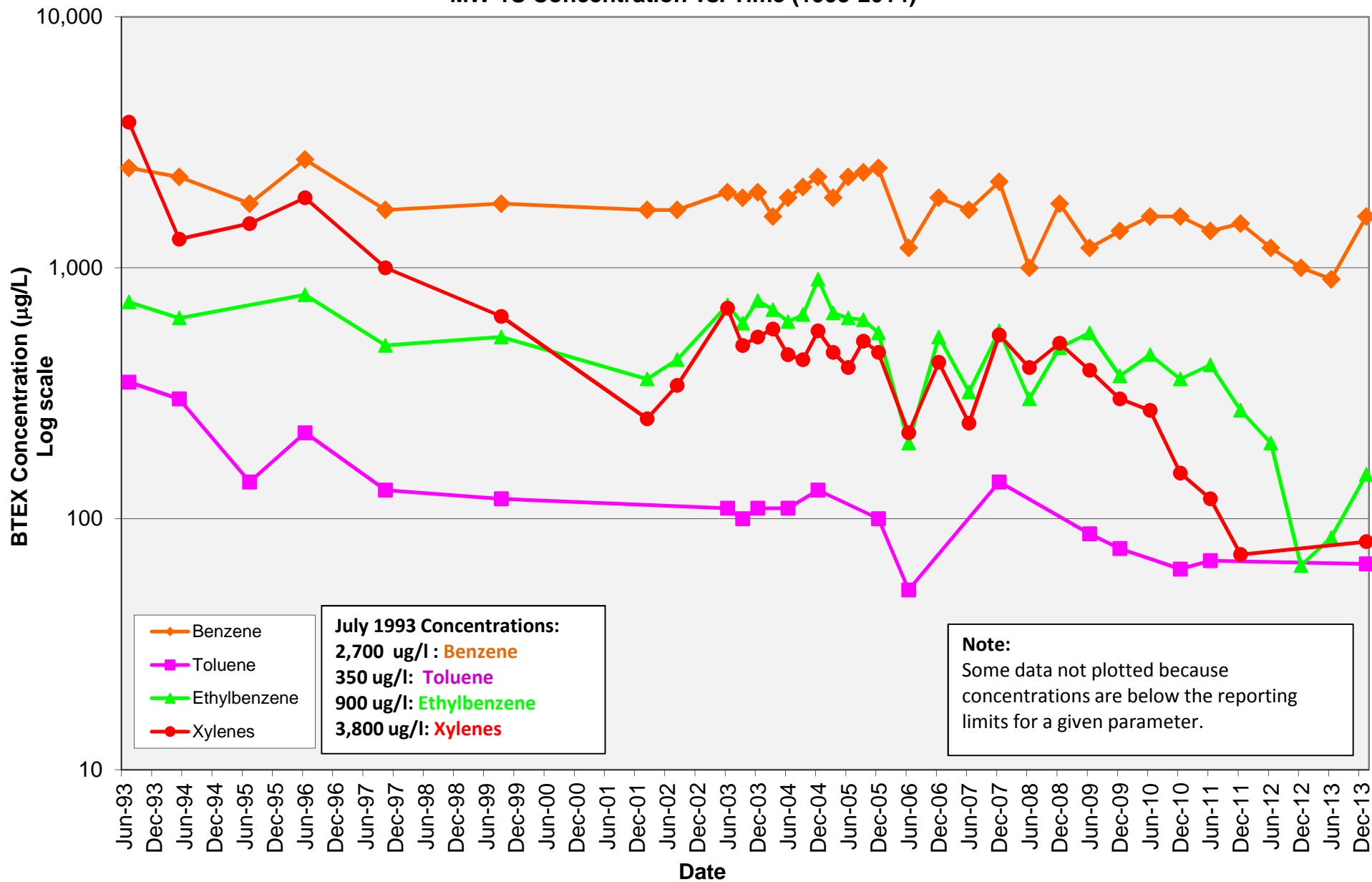
NOT TO SCALE

DATE: January 2014

Figure 2
Boring and Temporary Monitoring
Well Location Map
 Solvents and Petroleum Services Inc.

FOIL 199410

Figure 3
MW-1S Concentration vs. Time (1993-2014)



Appendix A: Field Logs

		<h2 style="margin: 0;">TEST BORING LOG</h2>						BORING NO. TW-1			
PROJECT & LOCATION: Brewerton Road- Right of Way Investigation										PROJECT NO.: 8423.4030 SHEET NO.: 1 OF 1	
CLIENT: Solvents and Petroleum											
CONTRACTOR: NYEG											
GROUNDWATER MEASUREMENT							CASING	SAMPLER	CORE BARREL	ELEVATION:	
DATE	TIME	DEPTH TO (FT.):			TYPE:						
		WATER	BOTTOM OF CASING	BOTTOM OF BORING	SIZE I.D.:					START DATE: 1/16/14 TIME: 840	
1/16/14	1310	3.44 bgs	15	16	HAMMER WT.:					FINISH DATE: 1/16/14 TIME: 940	
					HAMMER FALL:						
					DRILL FLUID:		DEPTH INTRODUCED:		RIG TYPE: Geoprobe		
					CHECKED BY:				DRILLER: Jay Maitland		
IF BORING IS DRY, CHECK HERE: <input type="checkbox"/>					DATE:				INSPECTOR: D. Benati		

DEPTH IN FEET	SAMPLE NO.	RECOVERY LENGTH	SPT BLOWS PER 6"	PID Reading (PPM)	NOTES (Evidence of Contam.)	FIELD CLASSIFICATION
— — —	S1	3.8/4'	NA	PID = 0 HS = 0		0-1' bgs <u>GRAVEL</u> , Some Sand, tr. silt, clay, tr. asphalt, blk. Staining, grey, moist, loose 1-3.8' bgs <u>SILT AND fm SAND</u> , tr. clay, reddish brown, loose, moist
— 5 — — —	S2	4/4'	NA	PID = 0 HS = 0		4-8'bgs <u>fm SAND</u> , Some Silt, tr. sand, tr. clay, reddish brown w/tr. rust, wet Water @ 4' bgs
— 1 0	S3	4/4'	NA	PID = 0 HS = 0		8-9' bgs <u>fmc SAND</u> , reddish brown, wet, loose 9-12' bgs <u>fm SAND</u> , tr. gravel, reddish brown, moist, compact
— — 1 5	S4	4/4'		PID = 0 HS = 0		12-13'bgs <u>fmc SAND</u> , reddish brown, loose, moist 13-16'bgs <u>fmc SAND</u> , little silt, tr. clay, reddish brown, moist, very compact
— — 2 0						EOB= 16 feet BGS

Soil Gas Reading: _____%	Soil Sample Collected: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Time: <u>930</u> Depth: <u>4 ft.</u> to <u>5 ft.</u>	Water Sample Collected: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Time: <u>1320</u> Screen Interval: <u>5-15'bgs</u>	BORING NO. TW-1 FOIL 199413
--------------------------	---	--	------------------------------------

		<h2 style="margin: 0;">TEST BORING LOG</h2>						BORING NO. TW-2	
PROJECT & LOCATION: Brewerton Road- Right of Way Investigation									
CLIENT: Solvents and Petroleum									
CONTRACTOR: NYEG									
PROJECT NO.: 8423.4030									
SHEET NO.: 1 OF 1									
GROUNDWATER MEASUREMENT									
DATE	TIME	DEPTH TO (FT.):			TYPE:	CASING	SAMPLER	CORE BARREL	ELEVATION:
		WATER	BOTTOM OF CASING	BOTTOM OF BORING					
1/16/14	1430	2.41	12	12	SIZE I.D.:				START DATE: 1/16/14 TIME: 945
					HAMMER WT.:				FINISH DATE: 1/16/14 TIME: 1215
					HAMMER FALL:				
					DRILL FLUID:		DEPTH INTRODUCED:		RIG TYPE: Geoprobe
					CHECKED BY:				DRILLER: Jay Maitland
IF BORING IS DRY, CHECK HERE: <input type="checkbox"/>					DATE:				INSPECTOR: D. Benati

DEPTH IN FEET	SAMPLE NO.	RECOVERY LENGTH	SPT BLOWS PER 6"	PID Reading (PPM)	NOTES (Evidence of Contam.)	FIELD CLASSIFICATION
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: linear-gradient(to right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> </div>	S1	3/4'	NA	PID = 0		0-2' bgs GRAVEL AND fmc SAND, tr. clay, tr. silt, tr. asphalt, blk staining, gray, moist, loose (fill) 2-4' bgs <u>fmc SAND AND SILT</u> , tr. clay, reddish brown, moist, compact
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: linear-gradient(to right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> </div>	S2	4/4'	NA	PID = 0 HS = 0		4-6' bgs <u>fmc SAND</u> , little silt, tr. clay, reddish brown, wet, loose (till) 6-8' bgs <u>Same as above</u> , moist, compact Water around 4 ft. bgs
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: linear-gradient(to right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> </div>	S3	4/4'	NA	PID = 0 HS = 0		8-10'bgs <u>same as above</u> , wet, loose 10-12' bgs <u>same as above</u> , moist, very compact Terminated @ 12 ft., driller indicated it would be difficult to proceed due to compaction
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: linear-gradient(to right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> </div>						EOB= 12 feet BGS
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: linear-gradient(to right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> </div>						
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; background: linear-gradient(to right, transparent 49%, black 49%, black 51%, transparent 51%);"></div> </div>						

Soil Gas Reading: _____%	Soil Sample Collected: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Time: 1145 Depth: 2 to 4' Sampled due to staining on soils	Water Sample Collected: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Time: 1400 Screen Interval: 2-12' bgs	BORING NO. TW-2
--------------------------	---	--	-----------------

		<h2 style="margin: 0;">TEST BORING LOG</h2>						BORING NO. TW-3	
PROJECT & LOCATION: Brewerton Road- Right of Way Investigation									
CLIENT: Solvents and Petroleum								PROJECT NO.: 8423.4030	
CONTRACTOR: NYEG								SHEET NO.: 1 OF 1	
GROUNDWATER MEASUREMENT						CASING	SAMPLER	CORE BARREL	ELEVATION:
DATE	TIME	DEPTH TO (FT.):			TYPE:				
		WATER	BOTTOM OF CASING	BOTTOM OF BORING	SIZE I.D.:				START DATE: 1/16/14 TIME: 1315
1/16/14	1545	0.7	13	16	HAMMER WT.:				
					HAMMER FALL:				FINISH DATE: 1/16/14 TIME: 1400
					DRILL FLUID:	DEPTH INTRODUCED:			RIG TYPE: Geoprobe
						CHECKED BY:			DRILLER: Jay Maitland
IF BORING IS DRY, CHECK HERE: <input type="checkbox"/>						DATE:			INSPECTOR: D. Benati

DEPTH IN FEET	SAMPLE NO.	RECOVERY LENGTH	SPT BLOWS PER 6"	PID Reading (PPM)	NOTES (Evidence of Contam.)	FIELD CLASSIFICATION
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 10px; height: 100%; border-right: 1px solid black;"></div> </div>	S1	1.5/4'	NA	PID = 0 HS = 0		0-2" bgs – <u>ORGANICS AND TOPSOIL</u> 2" – 1.5' bgs <u>fmc SAND</u> , little gravel, tr. silt, tr. clay, brown, moist, loose (fill)
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 10px; height: 100%; border-right: 1px solid black;"></div> </div>	S2	2/4'	NA	PID = 0 HS = 0		4'-6' bgs <u>GRAVEL</u> , Some fmc Sand, tr. silt, tr. clay, blk staining, grey, wet, loose (fill) 6'-8' bgs <u>fmc SAND</u> , Some Gravel, tr. silt, tr. clay, reddish brown, wet, loose
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 10px; height: 100%; border-right: 1px solid black;"></div> </div>	S3	4/4'	NA	PID = 0 HS = 0		8'-9.5' bgs <u>fmc SAND AND GRAVEL</u> , tr. silt, tr. clay, gray, wet, loose 9.5' – 12' bgs <u>fm SAND AND SILT</u> , tr. gravel, tr. clay, reddish brown, moist, very compact (till)
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 10px; height: 100%; border-right: 1px solid black;"></div> </div>	S4	4/4'	NA	PID = 0 HS = 0		12-12.5' bgs fall back from hole 12.5-16' bgs <u>same as above</u> (till)
<div style="height: 100px; border-left: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; left: 0; width: 10px; height: 100%; border-right: 1px solid black;"></div> </div>						<div style="border: 1px solid black; padding: 10px; display: inline-block;"> EOB= 16 feet BGS </div>

Soil Gas Reading: _____%	Soil Sample Collected: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Time: <u>1400</u> Depth: <u>4 to 6</u>	Water Sample Collected: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Time: <u>1530</u> Screen Interval: 3 to 13' bgs	BORING NO. TW-3
--------------------------	---	---	-----------------

		<h2 style="margin: 0;">TEST BORING LOG</h2>						BORING NO. TW-4	
PROJECT & LOCATION: Brewerton Road- Right of Way Investigation									
CLIENT: Solvents and Petroleum									
CONTRACTOR: NYEG									
PROJECT NO.: 8423.4030									
SHEET NO.: 1 OF 1									
GROUNDWATER MEASUREMENT						CASING	SAMPLER	CORE BARREL	ELEVATION:
DATE	TIME	DEPTH TO (FT.):			TYPE:				
		WATER	BOTTOM OF CASING	BOTTOM OF BORING	SIZE I.D.:				
1/16/14	1550	7.72	12	12	HAMMER WT.:				START DATE: 1/16/14 TIME: 1430
1/16/14	1600	7.62	12	12	HAMMER FALL:				FINISH DATE: 1/16/14 TIME: 1520
					DRILL FLUID:			DEPTH INTRODUCED:	RIG TYPE: Geoprobe
					CHECKED BY:			DRILLER: Jay Maitland	
IF BORING IS DRY, CHECK HERE: <input type="checkbox"/>					DATE:			INSPECTOR: D. Benati	

DEPTH IN FEET	SAMPLE NO.	RECOVERY LENGTH	SPT BLOWS PER 6"	PID Reading (PPM)	NOTES (Evidence of Contam.)	FIELD CLASSIFICATION
— — —	S1	3/4'	NA	PID = 0 HS = 0		0-0.5' bgs <u>TOPSOIL</u> 0.5-3'bgs <u>fmc SAND AND SILT</u> , tr. clay, tr. gravel, reddish brown (tr. root staining), moist, compact
— 5 — — —	S2	4/4'	NA	PID = 0 HS = 0		4-8' bgs <u>fmc SAND</u> , little silt, tr. clay, tr. gravel, reddish brown, moist, very compact
— 1 0 — —	S3	4/4'	NA	PID = 0 HS = 0		8-12' bgs <u>same as above</u>
— — — 1 5 —						EOB= 12 feet BGS due to refusal, driller indicated extremely hard soils at 11.5' – 12' bgs
— — — 2 0 —						

Soil Gas Reading: _____%	Soil Sample Collected: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Time: <u>1525</u> Depth: <u>3</u> to <u>4</u>	Water Sample Collected: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Time: <u>1550</u> Screen Interval: <u>2</u> to <u>12'</u> bgs	BORING NO. TW-4
--------------------------	--	---	-----------------

Appendix B: Laboratory Data

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-53428-1

Client Project/Site: Solvents and Petroleum

For:

CHA Inc

441 South Salina Street

Syracuse, New York 13202

Attn: Katie E Flood

Peggy Gray-Erdmann

Authorized for release by:

1/27/2014 10:17:14 AM

Peggy Gray-Erdmann, Client Relations Manager

(716)504-9829

peggy.gray-erdmann@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



**Ask
The
Expert**

Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

FOIL199418

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Surrogate Summary	13
QC Sample Results	14
QC Association Summary	17
Lab Chronicle	18
Certification Summary	19
Method Summary	20
Sample Summary	21
Chain of Custody	22
Receipt Checklists	23



Definitions/Glossary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Job ID: 480-53428-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-53428-1

Comments

No additional comments.

Receipt

The samples were received on 1/17/2014 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.5° C and 3.7° C.

GC/MS VOA

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) in batch 162441 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 162441 recovered outside control limits for the following analytes: 2-Hexanone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: TW-1 (480-53428-3).

No other analytical or quality issues were noted.

Detection Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Client Sample ID: TW-1

Lab Sample ID: 480-53428-3

No Detections.

Client Sample ID: TW-2

Lab Sample ID: 480-53428-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10		10		ug/L	1		8260C	Total/NA

Client Sample ID: TW-3

Lab Sample ID: 480-53428-5

No Detections.

Client Sample ID: TW-4

Lab Sample ID: 480-53428-6

No Detections.

Client Sample ID: Trip Blank

Lab Sample ID: 480-53428-11

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Client Sample ID: TW-1

Lab Sample ID: 480-53428-3

Date Collected: 01/16/14 13:20

Matrix: Water

Date Received: 01/17/14 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			01/21/14 02:00	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			01/21/14 02:00	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/21/14 02:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			01/21/14 02:00	1
1,1-Dichloroethane	ND		1.0		ug/L			01/21/14 02:00	1
1,1-Dichloroethene	ND		1.0		ug/L			01/21/14 02:00	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/21/14 02:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			01/21/14 02:00	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/21/14 02:00	1
1,2-Dichloroethane	ND		1.0		ug/L			01/21/14 02:00	1
1,2-Dichloropropane	ND		1.0		ug/L			01/21/14 02:00	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/21/14 02:00	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/21/14 02:00	1
2-Butanone (MEK)	ND		10		ug/L			01/21/14 02:00	1
2-Hexanone	ND	*	5.0		ug/L			01/21/14 02:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/21/14 02:00	1
Acetone	ND		10		ug/L			01/21/14 02:00	1
Benzene	ND		1.0		ug/L			01/21/14 02:00	1
Bromodichloromethane	ND		1.0		ug/L			01/21/14 02:00	1
Bromoform	ND		1.0		ug/L			01/21/14 02:00	1
Bromomethane	ND		1.0		ug/L			01/21/14 02:00	1
Carbon disulfide	ND		1.0		ug/L			01/21/14 02:00	1
Carbon tetrachloride	ND		1.0		ug/L			01/21/14 02:00	1
Chlorobenzene	ND		1.0		ug/L			01/21/14 02:00	1
Dibromochloromethane	ND		1.0		ug/L			01/21/14 02:00	1
Chloroethane	ND		1.0		ug/L			01/21/14 02:00	1
Chloroform	ND		1.0		ug/L			01/21/14 02:00	1
Chloromethane	ND		1.0		ug/L			01/21/14 02:00	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 02:00	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 02:00	1
Cyclohexane	ND		1.0		ug/L			01/21/14 02:00	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/21/14 02:00	1
Ethylbenzene	ND		1.0		ug/L			01/21/14 02:00	1
1,2-Dibromoethane	ND		1.0		ug/L			01/21/14 02:00	1
Isopropylbenzene	ND		1.0		ug/L			01/21/14 02:00	1
Methyl acetate	ND		1.0		ug/L			01/21/14 02:00	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/21/14 02:00	1
Methylcyclohexane	ND		1.0		ug/L			01/21/14 02:00	1
Methylene Chloride	ND		1.0		ug/L			01/21/14 02:00	1
Styrene	ND		1.0		ug/L			01/21/14 02:00	1
Tetrachloroethene	ND		1.0		ug/L			01/21/14 02:00	1
Toluene	ND		1.0		ug/L			01/21/14 02:00	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 02:00	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 02:00	1
Trichloroethene	ND		1.0		ug/L			01/21/14 02:00	1
Trichlorofluoromethane	ND		1.0		ug/L			01/21/14 02:00	1
Vinyl chloride	ND		1.0		ug/L			01/21/14 02:00	1
Xylenes, Total	ND		2.0		ug/L			01/21/14 02:00	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Client Sample ID: TW-1

Date Collected: 01/16/14 13:20

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		71 - 126		01/21/14 02:00	1
1,2-Dichloroethane-d4 (Surr)	95		66 - 137		01/21/14 02:00	1
4-Bromofluorobenzene (Surr)	113		73 - 120		01/21/14 02:00	1

Client Sample ID: TW-2

Date Collected: 01/16/14 14:00

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			01/21/14 02:25	1
1,1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			01/21/14 02:25	1
1,1,1,2-Trichloroethane	ND		1.0		ug/L			01/21/14 02:25	1
1,1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			01/21/14 02:25	1
1,1-Dichloroethane	ND		1.0		ug/L			01/21/14 02:25	1
1,1-Dichloroethene	ND		1.0		ug/L			01/21/14 02:25	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/21/14 02:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			01/21/14 02:25	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/21/14 02:25	1
1,2-Dichloroethane	ND		1.0		ug/L			01/21/14 02:25	1
1,2-Dichloropropane	ND		1.0		ug/L			01/21/14 02:25	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/21/14 02:25	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/21/14 02:25	1
2-Butanone (MEK)	ND		10		ug/L			01/21/14 02:25	1
2-Hexanone	ND	*	5.0		ug/L			01/21/14 02:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/21/14 02:25	1
Acetone	10		10		ug/L			01/21/14 02:25	1
Benzene	ND		1.0		ug/L			01/21/14 02:25	1
Bromodichloromethane	ND		1.0		ug/L			01/21/14 02:25	1
Bromoform	ND		1.0		ug/L			01/21/14 02:25	1
Bromomethane	ND		1.0		ug/L			01/21/14 02:25	1
Carbon disulfide	ND		1.0		ug/L			01/21/14 02:25	1
Carbon tetrachloride	ND		1.0		ug/L			01/21/14 02:25	1
Chlorobenzene	ND		1.0		ug/L			01/21/14 02:25	1
Dibromochloromethane	ND		1.0		ug/L			01/21/14 02:25	1
Chloroethane	ND		1.0		ug/L			01/21/14 02:25	1
Chloroform	ND		1.0		ug/L			01/21/14 02:25	1
Chloromethane	ND		1.0		ug/L			01/21/14 02:25	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 02:25	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 02:25	1
Cyclohexane	ND		1.0		ug/L			01/21/14 02:25	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/21/14 02:25	1
Ethylbenzene	ND		1.0		ug/L			01/21/14 02:25	1
1,2-Dibromoethane	ND		1.0		ug/L			01/21/14 02:25	1
Isopropylbenzene	ND		1.0		ug/L			01/21/14 02:25	1
Methyl acetate	ND		1.0		ug/L			01/21/14 02:25	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/21/14 02:25	1
Methylcyclohexane	ND		1.0		ug/L			01/21/14 02:25	1
Methylene Chloride	ND		1.0		ug/L			01/21/14 02:25	1
Styrene	ND		1.0		ug/L			01/21/14 02:25	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Client Sample ID: TW-2

Lab Sample ID: 480-53428-4

Date Collected: 01/16/14 14:00

Matrix: Water

Date Received: 01/17/14 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0		ug/L			01/21/14 02:25	1
Toluene	ND		1.0		ug/L			01/21/14 02:25	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 02:25	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 02:25	1
Trichloroethene	ND		1.0		ug/L			01/21/14 02:25	1
Trichlorofluoromethane	ND		1.0		ug/L			01/21/14 02:25	1
Vinyl chloride	ND		1.0		ug/L			01/21/14 02:25	1
Xylenes, Total	ND		2.0		ug/L			01/21/14 02:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		71 - 126		01/21/14 02:25	1
1,2-Dichloroethane-d4 (Surr)	95		66 - 137		01/21/14 02:25	1
4-Bromofluorobenzene (Surr)	114		73 - 120		01/21/14 02:25	1

Client Sample ID: TW-3

Lab Sample ID: 480-53428-5

Date Collected: 01/16/14 15:30

Matrix: Water

Date Received: 01/17/14 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			01/21/14 02:51	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			01/21/14 02:51	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/21/14 02:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			01/21/14 02:51	1
1,1-Dichloroethane	ND		1.0		ug/L			01/21/14 02:51	1
1,1-Dichloroethene	ND		1.0		ug/L			01/21/14 02:51	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/21/14 02:51	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			01/21/14 02:51	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/21/14 02:51	1
1,2-Dichloroethane	ND		1.0		ug/L			01/21/14 02:51	1
1,2-Dichloropropane	ND		1.0		ug/L			01/21/14 02:51	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/21/14 02:51	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/21/14 02:51	1
2-Butanone (MEK)	ND		10		ug/L			01/21/14 02:51	1
2-Hexanone	ND *		5.0		ug/L			01/21/14 02:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/21/14 02:51	1
Acetone	ND		10		ug/L			01/21/14 02:51	1
Benzene	ND		1.0		ug/L			01/21/14 02:51	1
Bromodichloromethane	ND		1.0		ug/L			01/21/14 02:51	1
Bromoform	ND		1.0		ug/L			01/21/14 02:51	1
Bromomethane	ND		1.0		ug/L			01/21/14 02:51	1
Carbon disulfide	ND		1.0		ug/L			01/21/14 02:51	1
Carbon tetrachloride	ND		1.0		ug/L			01/21/14 02:51	1
Chlorobenzene	ND		1.0		ug/L			01/21/14 02:51	1
Dibromochloromethane	ND		1.0		ug/L			01/21/14 02:51	1
Chloroethane	ND		1.0		ug/L			01/21/14 02:51	1
Chloroform	ND		1.0		ug/L			01/21/14 02:51	1
Chloromethane	ND		1.0		ug/L			01/21/14 02:51	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 02:51	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 02:51	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Client Sample ID: TW-3

Lab Sample ID: 480-53428-5

Date Collected: 01/16/14 15:30

Matrix: Water

Date Received: 01/17/14 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		1.0		ug/L			01/21/14 02:51	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/21/14 02:51	1
Ethylbenzene	ND		1.0		ug/L			01/21/14 02:51	1
1,2-Dibromoethane	ND		1.0		ug/L			01/21/14 02:51	1
Isopropylbenzene	ND		1.0		ug/L			01/21/14 02:51	1
Methyl acetate	ND		1.0		ug/L			01/21/14 02:51	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/21/14 02:51	1
Methylcyclohexane	ND		1.0		ug/L			01/21/14 02:51	1
Methylene Chloride	ND		1.0		ug/L			01/21/14 02:51	1
Styrene	ND		1.0		ug/L			01/21/14 02:51	1
Tetrachloroethene	ND		1.0		ug/L			01/21/14 02:51	1
Toluene	ND		1.0		ug/L			01/21/14 02:51	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 02:51	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 02:51	1
Trichloroethene	ND		1.0		ug/L			01/21/14 02:51	1
Trichlorofluoromethane	ND		1.0		ug/L			01/21/14 02:51	1
Vinyl chloride	ND		1.0		ug/L			01/21/14 02:51	1
Xylenes, Total	ND		2.0		ug/L			01/21/14 02:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		71 - 126					01/21/14 02:51	1
1,2-Dichloroethane-d4 (Surr)	93		66 - 137					01/21/14 02:51	1
4-Bromofluorobenzene (Surr)	115		73 - 120					01/21/14 02:51	1

Client Sample ID: TW-4

Lab Sample ID: 480-53428-6

Date Collected: 01/16/14 15:50

Matrix: Water

Date Received: 01/17/14 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0		ug/L			01/21/14 03:16	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			01/21/14 03:16	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/21/14 03:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			01/21/14 03:16	1
1,1-Dichloroethane	ND		1.0		ug/L			01/21/14 03:16	1
1,1-Dichloroethene	ND		1.0		ug/L			01/21/14 03:16	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/21/14 03:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			01/21/14 03:16	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/21/14 03:16	1
1,2-Dichloroethane	ND		1.0		ug/L			01/21/14 03:16	1
1,2-Dichloropropane	ND		1.0		ug/L			01/21/14 03:16	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/21/14 03:16	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/21/14 03:16	1
2-Butanone (MEK)	ND		10		ug/L			01/21/14 03:16	1
2-Hexanone	ND *		5.0		ug/L			01/21/14 03:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/21/14 03:16	1
Acetone	ND		10		ug/L			01/21/14 03:16	1
Benzene	ND		1.0		ug/L			01/21/14 03:16	1
Bromodichloromethane	ND		1.0		ug/L			01/21/14 03:16	1
Bromoform	ND		1.0		ug/L			01/21/14 03:16	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Client Sample ID: TW-4

Lab Sample ID: 480-53428-6

Date Collected: 01/16/14 15:50

Matrix: Water

Date Received: 01/17/14 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.0		ug/L			01/21/14 03:16	1
Carbon disulfide	ND		1.0		ug/L			01/21/14 03:16	1
Carbon tetrachloride	ND		1.0		ug/L			01/21/14 03:16	1
Chlorobenzene	ND		1.0		ug/L			01/21/14 03:16	1
Dibromochloromethane	ND		1.0		ug/L			01/21/14 03:16	1
Chloroethane	ND		1.0		ug/L			01/21/14 03:16	1
Chloroform	ND		1.0		ug/L			01/21/14 03:16	1
Chloromethane	ND		1.0		ug/L			01/21/14 03:16	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 03:16	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 03:16	1
Cyclohexane	ND		1.0		ug/L			01/21/14 03:16	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/21/14 03:16	1
Ethylbenzene	ND		1.0		ug/L			01/21/14 03:16	1
1,2-Dibromoethane	ND		1.0		ug/L			01/21/14 03:16	1
Isopropylbenzene	ND		1.0		ug/L			01/21/14 03:16	1
Methyl acetate	ND		1.0		ug/L			01/21/14 03:16	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/21/14 03:16	1
Methylcyclohexane	ND		1.0		ug/L			01/21/14 03:16	1
Methylene Chloride	ND		1.0		ug/L			01/21/14 03:16	1
Styrene	ND		1.0		ug/L			01/21/14 03:16	1
Tetrachloroethene	ND		1.0		ug/L			01/21/14 03:16	1
Toluene	ND		1.0		ug/L			01/21/14 03:16	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 03:16	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 03:16	1
Trichloroethene	ND		1.0		ug/L			01/21/14 03:16	1
Trichlorofluoromethane	ND		1.0		ug/L			01/21/14 03:16	1
Vinyl chloride	ND		1.0		ug/L			01/21/14 03:16	1
Xylenes, Total	ND		2.0		ug/L			01/21/14 03:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		71 - 126		01/21/14 03:16	1
1,2-Dichloroethane-d4 (Surr)	91		66 - 137		01/21/14 03:16	1
4-Bromofluorobenzene (Surr)	113		73 - 120		01/21/14 03:16	1

Client Sample ID: Trip Blank

Lab Sample ID: 480-53428-11

Date Collected: 01/16/14 00:00

Matrix: Water

Date Received: 01/17/14 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/21/14 01:34	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/21/14 01:34	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			01/21/14 01:34	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/21/14 01:34	1
1,1-Dichloroethane	ND		1.0		ug/L			01/21/14 01:34	1
1,1-Dichloroethene	ND		1.0		ug/L			01/21/14 01:34	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/21/14 01:34	1
1,1-Dichloropropene	ND		1.0		ug/L			01/21/14 01:34	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			01/21/14 01:34	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/21/14 01:34	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Client Sample ID: Trip Blank

Lab Sample ID: 480-53428-11

Date Collected: 01/16/14 00:00

Matrix: Water

Date Received: 01/17/14 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0		ug/L			01/21/14 01:34	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/21/14 01:34	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/21/14 01:34	1
1,2-Dichloroethane	ND		1.0		ug/L			01/21/14 01:34	1
1,2-Dichloropropane	ND		1.0		ug/L			01/21/14 01:34	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/21/14 01:34	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/21/14 01:34	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/21/14 01:34	1
Benzene	ND		1.0		ug/L			01/21/14 01:34	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/21/14 01:34	1
Bromodichloromethane	ND		1.0		ug/L			01/21/14 01:34	1
Bromoform	ND		1.0		ug/L			01/21/14 01:34	1
1,3-Dichloropropane	ND		1.0		ug/L			01/21/14 01:34	1
Bromomethane	ND		1.0		ug/L			01/21/14 01:34	1
Carbon tetrachloride	ND		1.0		ug/L			01/21/14 01:34	1
Chlorobenzene	ND		1.0		ug/L			01/21/14 01:34	1
2,2-Dichloropropane	ND		1.0		ug/L			01/21/14 01:34	1
Dibromochloromethane	ND		1.0		ug/L			01/21/14 01:34	1
Chloroethane	ND		1.0		ug/L			01/21/14 01:34	1
Chloroform	ND		1.0		ug/L			01/21/14 01:34	1
2-Chlorotoluene	ND		1.0		ug/L			01/21/14 01:34	1
Chloromethane	ND		1.0		ug/L			01/21/14 01:34	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 01:34	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 01:34	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/21/14 01:34	1
4-Chlorotoluene	ND		1.0		ug/L			01/21/14 01:34	1
Ethylbenzene	ND		1.0		ug/L			01/21/14 01:34	1
4-Isopropyltoluene	ND		1.0		ug/L			01/21/14 01:34	1
Isopropylbenzene	ND		1.0		ug/L			01/21/14 01:34	1
Methylene Chloride	ND		1.0		ug/L			01/21/14 01:34	1
Styrene	ND		1.0		ug/L			01/21/14 01:34	1
Bromobenzene	ND		1.0		ug/L			01/21/14 01:34	1
Tetrachloroethene	ND		1.0		ug/L			01/21/14 01:34	1
Toluene	ND		1.0		ug/L			01/21/14 01:34	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 01:34	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 01:34	1
Trichloroethene	ND		1.0		ug/L			01/21/14 01:34	1
Trichlorofluoromethane	ND		1.0		ug/L			01/21/14 01:34	1
Bromochloromethane	ND		1.0		ug/L			01/21/14 01:34	1
Vinyl chloride	ND		1.0		ug/L			01/21/14 01:34	1
Dibromomethane	ND		1.0		ug/L			01/21/14 01:34	1
Hexachlorobutadiene	ND		1.0		ug/L			01/21/14 01:34	1
m,p-Xylene	ND		2.0		ug/L			01/21/14 01:34	1
Naphthalene	ND		1.0		ug/L			01/21/14 01:34	1
n-Butylbenzene	ND		1.0		ug/L			01/21/14 01:34	1
N-Propylbenzene	ND		1.0		ug/L			01/21/14 01:34	1
o-Xylene	ND		1.0		ug/L			01/21/14 01:34	1
sec-Butylbenzene	ND		1.0		ug/L			01/21/14 01:34	1
tert-Butylbenzene	ND		1.0		ug/L			01/21/14 01:34	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Client Sample ID: Trip Blank

Date Collected: 01/16/14 00:00

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-11

Matrix: Water

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	71		66 - 137		01/21/14 01:34	1
Toluene-d8 (Surr)	73		71 - 126		01/21/14 01:34	1
4-Bromofluorobenzene (Surr)	87		73 - 120		01/21/14 01:34	1

Surrogate Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		12DCE (66-137)	TOL (71-126)	BFB (73-120)
480-53428-3	TW-1	95	96	113
480-53428-4	TW-2	95	96	114
480-53428-5	TW-3	93	94	115
480-53428-6	TW-4	91	94	113
480-53428-11	Trip Blank	71	73	87
LCS 480-162441/4	Lab Control Sample	99	97	116
MB 480-162441/6	Method Blank	91	95	115

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-162441/6

Matrix: Water

Analysis Batch: 162441

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			01/21/14 00:29	1
1,1,1-Trichloroethane	ND		1.0		ug/L			01/21/14 00:29	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			01/21/14 00:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0		ug/L			01/21/14 00:29	1
1,1,2-Trichloroethane	ND		1.0		ug/L			01/21/14 00:29	1
1,1-Dichloroethane	ND		1.0		ug/L			01/21/14 00:29	1
1,1-Dichloroethene	ND		1.0		ug/L			01/21/14 00:29	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			01/21/14 00:29	1
1,1-Dichloropropene	ND		1.0		ug/L			01/21/14 00:29	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			01/21/14 00:29	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			01/21/14 00:29	1
1,2,3-Trichloropropane	ND		1.0		ug/L			01/21/14 00:29	1
1,2-Dichlorobenzene	ND		1.0		ug/L			01/21/14 00:29	1
1,2-Dichloroethane	ND		1.0		ug/L			01/21/14 00:29	1
2-Butanone (MEK)	ND		10		ug/L			01/21/14 00:29	1
1,2-Dichloropropane	ND		1.0		ug/L			01/21/14 00:29	1
2-Hexanone	ND		5.0		ug/L			01/21/14 00:29	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			01/21/14 00:29	1
4-Methyl-2-pentanone (MIBK)	ND		5.0		ug/L			01/21/14 00:29	1
1,3-Dichlorobenzene	ND		1.0		ug/L			01/21/14 00:29	1
Acetone	ND		10		ug/L			01/21/14 00:29	1
1,4-Dichlorobenzene	ND		1.0		ug/L			01/21/14 00:29	1
Benzene	ND		1.0		ug/L			01/21/14 00:29	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			01/21/14 00:29	1
Bromodichloromethane	ND		1.0		ug/L			01/21/14 00:29	1
Bromoform	ND		1.0		ug/L			01/21/14 00:29	1
Carbon disulfide	ND		1.0		ug/L			01/21/14 00:29	1
1,3-Dichloropropane	ND		1.0		ug/L			01/21/14 00:29	1
Bromomethane	ND		1.0		ug/L			01/21/14 00:29	1
Carbon tetrachloride	ND		1.0		ug/L			01/21/14 00:29	1
Chlorobenzene	ND		1.0		ug/L			01/21/14 00:29	1
2,2-Dichloropropane	ND		1.0		ug/L			01/21/14 00:29	1
Dibromochloromethane	ND		1.0		ug/L			01/21/14 00:29	1
Chloroethane	ND		1.0		ug/L			01/21/14 00:29	1
Chloroform	ND		1.0		ug/L			01/21/14 00:29	1
2-Chlorotoluene	ND		1.0		ug/L			01/21/14 00:29	1
Cyclohexane	ND		1.0		ug/L			01/21/14 00:29	1
Chloromethane	ND		1.0		ug/L			01/21/14 00:29	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 00:29	1
1,2-Dibromoethane	ND		1.0		ug/L			01/21/14 00:29	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 00:29	1
Dichlorodifluoromethane	ND		1.0		ug/L			01/21/14 00:29	1
4-Chlorotoluene	ND		1.0		ug/L			01/21/14 00:29	1
Methyl acetate	ND		1.0		ug/L			01/21/14 00:29	1
Ethylbenzene	ND		1.0		ug/L			01/21/14 00:29	1
Methyl tert-butyl ether	ND		1.0		ug/L			01/21/14 00:29	1
4-Isopropyltoluene	ND		1.0		ug/L			01/21/14 00:29	1
Methylcyclohexane	ND		1.0		ug/L			01/21/14 00:29	1

TestAmerica Buffalo

QC Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-162441/6

Matrix: Water

Analysis Batch: 162441

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0		ug/L			01/21/14 00:29	1
Methylene Chloride	ND		1.0		ug/L			01/21/14 00:29	1
Styrene	ND		1.0		ug/L			01/21/14 00:29	1
Bromobenzene	ND		1.0		ug/L			01/21/14 00:29	1
Tetrachloroethene	ND		1.0		ug/L			01/21/14 00:29	1
Toluene	ND		1.0		ug/L			01/21/14 00:29	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			01/21/14 00:29	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			01/21/14 00:29	1
Trichloroethene	ND		1.0		ug/L			01/21/14 00:29	1
Trichlorofluoromethane	ND		1.0		ug/L			01/21/14 00:29	1
Bromochloromethane	ND		1.0		ug/L			01/21/14 00:29	1
Xylenes, Total	ND		2.0		ug/L			01/21/14 00:29	1
Vinyl chloride	ND		1.0		ug/L			01/21/14 00:29	1
Dibromomethane	ND		1.0		ug/L			01/21/14 00:29	1
Hexachlorobutadiene	ND		1.0		ug/L			01/21/14 00:29	1
m,p-Xylene	ND		2.0		ug/L			01/21/14 00:29	1
Naphthalene	ND		1.0		ug/L			01/21/14 00:29	1
n-Butylbenzene	ND		1.0		ug/L			01/21/14 00:29	1
N-Propylbenzene	ND		1.0		ug/L			01/21/14 00:29	1
o-Xylene	ND		1.0		ug/L			01/21/14 00:29	1
sec-Butylbenzene	ND		1.0		ug/L			01/21/14 00:29	1
tert-Butylbenzene	ND		1.0		ug/L			01/21/14 00:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		66 - 137		01/21/14 00:29	1
Toluene-d8 (Surr)	95		71 - 126		01/21/14 00:29	1
4-Bromofluorobenzene (Surr)	115		73 - 120		01/21/14 00:29	1

Lab Sample ID: LCS 480-162441/4

Matrix: Water

Analysis Batch: 162441

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	25.2		ug/L		101	71 - 129
1,1-Dichloroethene	25.0	26.4		ug/L		106	58 - 121
1,2-Dichlorobenzene	25.0	22.7		ug/L		91	80 - 124
1,2-Dichloroethane	25.0	24.1		ug/L		96	75 - 127
1,2,4-Trimethylbenzene	25.0	21.7		ug/L		87	76 - 121
Benzene	25.0	25.6		ug/L		102	71 - 124
Chlorobenzene	25.0	24.9		ug/L		100	72 - 120
cis-1,2-Dichloroethene	25.0	26.0		ug/L		104	74 - 124
Ethylbenzene	25.0	24.1		ug/L		96	77 - 123
Methyl tert-butyl ether	25.0	26.0		ug/L		104	64 - 127
Tetrachloroethene	25.0	28.5		ug/L		114	74 - 122
Toluene	25.0	24.6		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	26.1		ug/L		104	73 - 127
Trichloroethene	25.0	26.2		ug/L		105	74 - 123
m,p-Xylene	25.0	25.1		ug/L		100	76 - 122

TestAmerica Buffalo

QC Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-162441/4

Matrix: Water

Analysis Batch: 162441

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	25.0	24.9		ug/L		100	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		66 - 137
Toluene-d8 (Surr)	97		71 - 126
4-Bromofluorobenzene (Surr)	116		73 - 120

QC Association Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

GC/MS VOA

Analysis Batch: 162441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53428-3	TW-1	Total/NA	Water	8260C	
480-53428-4	TW-2	Total/NA	Water	8260C	
480-53428-5	TW-3	Total/NA	Water	8260C	
480-53428-6	TW-4	Total/NA	Water	8260C	
480-53428-11	Trip Blank	Total/NA	Water	8260C	
LCS 480-162441/4	Lab Control Sample	Total/NA	Water	8260C	
MB 480-162441/6	Method Blank	Total/NA	Water	8260C	

Lab Chronicle

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Client Sample ID: TW-1

Date Collected: 01/16/14 13:20

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	162441	01/21/14 02:00	LCH	TAL BUF

Client Sample ID: TW-2

Date Collected: 01/16/14 14:00

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	162441	01/21/14 02:25	LCH	TAL BUF

Client Sample ID: TW-3

Date Collected: 01/16/14 15:30

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	162441	01/21/14 02:51	LCH	TAL BUF

Client Sample ID: TW-4

Date Collected: 01/16/14 15:50

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	162441	01/21/14 03:16	LCH	TAL BUF

Client Sample ID: Trip Blank

Date Collected: 01/16/14 00:00

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	162441	01/21/14 01:34	LCH	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TestAmerica Buffalo

Certification Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-14

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

TestAmerica Buffalo

Method Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-53428-3	TW-1	Water	01/16/14 13:20	01/17/14 01:00
480-53428-4	TW-2	Water	01/16/14 14:00	01/17/14 01:00
480-53428-5	TW-3	Water	01/16/14 15:30	01/17/14 01:00
480-53428-6	TW-4	Water	01/16/14 15:50	01/17/14 01:00
480-53428-11	Trip Blank	Water	01/16/14 00:00	01/17/14 01:00

Chain of Custody Record

Client Information		Sampler: <u>Merrick/Gilbert</u>		Lab PM: <u>Gray-Erdmann, Peggy J</u>		Carrier Tracking No(s):		COC No: <u>480-43507-11762.1</u>	
Client Contact: <u>Katie Flood - Merrick</u>		Phone: <u>315 380 7331</u>		E-Mail: <u>peggy.gray-erdmann@testamericainc.com</u>		Page 1 of 1		Job #:	
Company: <u>CHA Inc</u>		Address: <u>441 South Salina Street</u>		City: <u>Syracuse</u>		State, Zip: <u>NY, 13202</u>		Phone: <u>8423 2010.44000</u>	
Email: <u>kflood@chacompanies.com</u>		Project #: <u>48004389</u>		SSOW#:		Due Date Requested: <u>10 day</u>		TAT Requested (days):	
Project Name: <u>Solvents and Petroleum</u>		Site:		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		6010C, 6020A, SM2340B	
5M510D - Total Organic Carbon		8260C - (MOD) List for MW-4R		SM4500_52_D - Sulfide		353.2, 353.2, Nitrite, D516, Nitrate, Calc, SM4500_C1_E		310.2 - Alkalinity, Total	
3500_Fe, D - Ferrous Iron		VOCs 8260		8260 (8021-654)		31013 TPH fingerprint		Total Number of containers	
Special Instructions/Note:		31013 Sampled 13:35		MW-1S, MW-4R		6-w samples have project specific RLS			
MW-1S		11/16/14		1200		G		Water	
MW-4R		11/16/14		1522		G		Water	
TW 1		11/16/14		1320		G		Water	
TW 2		11/16/14		1400		G		Water	
TW 3		11/16/14		1530		G		Water	
TW 4		11/16/14		930		G		Soil	
TW 1		11/16/14		1145		G		Soil	
TW 2		11/16/14		1400		G		Soil	
TW 3		11/16/14		1525		G		Soil	
TW 4		11/16/14		1525		G		Soil	
TSP Blank		11/16/14		17:00		CMTA		Date/Time: 17:00 CMTA	
Relinquished by: <u>Katie Flood</u>		Date/Time: 11/16/14		Company: <u>CHA Inc</u>		Received by: <u>Katie Flood</u>		Date/Time: 11/16/14	
Relinquished by: <u>RE</u>		Date/Time: 11/16/14		Company: <u>CHA Inc</u>		Received by: <u>RE</u>		Date/Time: 11/16/14	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seal No.:		Custody Seal No.:		Custody Seal No.:		Custody Seal No.:		Custody Seal No.:	
Custody Seals Intact: <u>Yes</u>		Custody Seals Intact: <u>Yes</u>		Custody Seals Intact: <u>Yes</u>		Custody Seals Intact: <u>Yes</u>		Custody Seals Intact: <u>Yes</u>	
Cooler Temperature(s) °C and Other Remarks: <u>3.7 3.5 #2</u>		Cooler Temperature(s) °C and Other Remarks: <u>3.7 3.5 #2</u>		Cooler Temperature(s) °C and Other Remarks: <u>3.7 3.5 #2</u>		Cooler Temperature(s) °C and Other Remarks: <u>3.7 3.5 #2</u>		Cooler Temperature(s) °C and Other Remarks: <u>3.7 3.5 #2</u>	

Login Sample Receipt Checklist

Client: CHA Inc

Job Number: 480-53428-1

Login Number: 53428

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	CHA
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-53428-2

Client Project/Site: Solvents and Petroleum

For:

CHA Inc

441 South Salina Street

Syracuse, New York 13202

Attn: Katie E Flood

Peggy Gray-Erdmann

Authorized for release by:

1/24/2014 12:25:41 PM

Peggy Gray-Erdmann, Client Relations Manager

(716)504-9829

peggy.gray-erdmann@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



**Ask
The
Expert**

Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

FOIL199441

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	14
Lab Chronicle	15
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20



Definitions/Glossary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Job ID: 480-53428-2

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-53428-2

Comments

No additional comments.

Receipt

The samples were received on 1/17/2014 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.5° C and 3.7° C.

Except:

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): MW-1R (480-53428-12).
Logged in as per volume received.

GC/MS VOA

Method(s) 8260C: Reported analyte concentrations in the following sample(s) are below 200ug/kg and may be biased low due to the sample(s) not being collected according to 5035-L/5035A-L low-level specifications: TW-1 (480-53428-7), TW-2 (480-53428-8), TW-3 (480-53428-9), TW-4 (480-53428-10).

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) for batch 162927 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

Method(s) 8260C: The method blank for batch 162927 contained Acetone and Methylene chloride above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

Detection Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Client Sample ID: TW-1

Lab Sample ID: 480-53428-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	16		5.0		ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: TW-2

Lab Sample ID: 480-53428-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	16		5.0		ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: TW-3

Lab Sample ID: 480-53428-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	17		5.0		ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: TW-4

Lab Sample ID: 480-53428-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	16		5.0		ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Client Sample ID: TW-1

Lab Sample ID: 480-53428-7

Date Collected: 01/16/14 09:30

Matrix: Solid

Date Received: 01/17/14 01:00

Percent Solids: 88.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,1-Dichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,1-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,2-Dichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,2-Dichloropropane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
2-Butanone (MEK)	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
2-Hexanone	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Acetone	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Benzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Bromodichloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Bromoform	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Bromomethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Carbon disulfide	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Carbon tetrachloride	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Chlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Dibromochloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Chloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Chloroform	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Chloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Cyclohexane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Dichlorodifluoromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Ethylbenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
1,2-Dibromoethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Isopropylbenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Methyl acetate	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Methyl tert-butyl ether	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Methylcyclohexane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Methylene Chloride	16		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Styrene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Tetrachloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Toluene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Trichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Trichlorofluoromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Vinyl chloride	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1
Xylenes, Total	ND		10		ug/Kg	☼	01/23/14 10:41	01/23/14 16:03	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Client Sample ID: TW-1

Date Collected: 01/16/14 09:30

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-7

Matrix: Solid

Percent Solids: 88.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		71 - 125	01/23/14 10:41	01/23/14 16:03	1
1,2-Dichloroethane-d4 (Surr)	100		64 - 126	01/23/14 10:41	01/23/14 16:03	1
4-Bromofluorobenzene (Surr)	104		72 - 126	01/23/14 10:41	01/23/14 16:03	1

Client Sample ID: TW-2

Date Collected: 01/16/14 11:45

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-8

Matrix: Solid

Percent Solids: 84.1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,1-Dichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,1-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,2-Dichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,2-Dichloropropane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
2-Butanone (MEK)	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
2-Hexanone	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Acetone	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Benzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Bromodichloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Bromoform	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Bromomethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Carbon disulfide	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Carbon tetrachloride	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Chlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Dibromochloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Chloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Chloroform	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Chloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Cyclohexane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Dichlorodifluoromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Ethylbenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
1,2-Dibromoethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Isopropylbenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Methyl acetate	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Methyl tert-butyl ether	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Methylcyclohexane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Methylene Chloride	16		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Styrene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Client Sample ID: TW-2

Lab Sample ID: 480-53428-8

Date Collected: 01/16/14 11:45

Matrix: Solid

Date Received: 01/17/14 01:00

Percent Solids: 84.1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Toluene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Trichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Trichlorofluoromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Vinyl chloride	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1
Xylenes, Total	ND		10		ug/Kg	☼	01/23/14 10:41	01/23/14 16:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		71 - 125	01/23/14 10:41	01/23/14 16:29	1
1,2-Dichloroethane-d4 (Surr)	99		64 - 126	01/23/14 10:41	01/23/14 16:29	1
4-Bromofluorobenzene (Surr)	100		72 - 126	01/23/14 10:41	01/23/14 16:29	1

Client Sample ID: TW-3

Lab Sample ID: 480-53428-9

Date Collected: 01/16/14 14:00

Matrix: Solid

Date Received: 01/17/14 01:00

Percent Solids: 89.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,1-Dichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,1-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,2-Dichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,2-Dichloropropane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
2-Butanone (MEK)	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
2-Hexanone	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Acetone	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Benzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Bromodichloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Bromoform	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Bromomethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Carbon disulfide	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Carbon tetrachloride	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Chlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Dibromochloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Chloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Chloroform	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Chloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Client Sample ID: TW-3

Lab Sample ID: 480-53428-9

Date Collected: 01/16/14 14:00

Matrix: Solid

Date Received: 01/17/14 01:00

Percent Solids: 89.7

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Dichlorodifluoromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Ethylbenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
1,2-Dibromoethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Isopropylbenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Methyl acetate	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Methyl tert-butyl ether	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Methylcyclohexane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Methylene Chloride	17		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Styrene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Tetrachloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Toluene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Trichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Trichlorofluoromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Vinyl chloride	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1
Xylenes, Total	ND		10		ug/Kg	☼	01/23/14 10:41	01/23/14 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		71 - 125	01/23/14 10:41	01/23/14 16:55	1
1,2-Dichloroethane-d4 (Surr)	98		64 - 126	01/23/14 10:41	01/23/14 16:55	1
4-Bromofluorobenzene (Surr)	100		72 - 126	01/23/14 10:41	01/23/14 16:55	1

Client Sample ID: TW-4

Lab Sample ID: 480-53428-10

Date Collected: 01/16/14 15:25

Matrix: Solid

Date Received: 01/17/14 01:00

Percent Solids: 88.1

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,1-Dichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,1-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,2-Dichloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,2-Dichloropropane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
2-Butanone (MEK)	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
2-Hexanone	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Acetone	ND		25		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Benzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Bromodichloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Bromoform	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1

TestAmerica Buffalo

Client Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Client Sample ID: TW-4

Lab Sample ID: 480-53428-10

Date Collected: 01/16/14 15:25

Matrix: Solid

Date Received: 01/17/14 01:00

Percent Solids: 88.1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Carbon disulfide	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Carbon tetrachloride	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Chlorobenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Dibromochloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Chloroethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Chloroform	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Chloromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Cyclohexane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Dichlorodifluoromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Ethylbenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
1,2-Dibromoethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Isopropylbenzene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Methyl acetate	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Methyl tert-butyl ether	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Methylcyclohexane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Methylene Chloride	16		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Styrene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Tetrachloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Toluene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Trichloroethene	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Trichlorofluoromethane	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Vinyl chloride	ND		5.0		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1
Xylenes, Total	ND		10		ug/Kg	☼	01/23/14 10:41	01/23/14 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		71 - 125	01/23/14 10:41	01/23/14 17:21	1
1,2-Dichloroethane-d4 (Surr)	101		64 - 126	01/23/14 10:41	01/23/14 17:21	1
4-Bromofluorobenzene (Surr)	102		72 - 126	01/23/14 10:41	01/23/14 17:21	1

TestAmerica Buffalo

Surrogate Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (71-125)	12DCE (64-126)	BFB (72-126)
480-53428-7	TW-1	99	100	104
480-53428-8	TW-2	98	99	100
480-53428-9	TW-3	98	98	100
480-53428-10	TW-4	97	101	102
LCS 480-162927/6	Lab Control Sample	98	98	103
MB 480-162927/7	Method Blank	98	95	99

Surrogate Legend

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-162927/7

Matrix: Solid

Analysis Batch: 162927

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0		ug/Kg			01/23/14 12:27	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg			01/23/14 12:27	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg			01/23/14 12:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg			01/23/14 12:27	1
1,1-Dichloroethane	ND		5.0		ug/Kg			01/23/14 12:27	1
1,1-Dichloroethene	ND		5.0		ug/Kg			01/23/14 12:27	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			01/23/14 12:27	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			01/23/14 12:27	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg			01/23/14 12:27	1
1,2-Dichloroethane	ND		5.0		ug/Kg			01/23/14 12:27	1
1,2-Dichloropropane	ND		5.0		ug/Kg			01/23/14 12:27	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg			01/23/14 12:27	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg			01/23/14 12:27	1
2-Butanone (MEK)	ND		25		ug/Kg			01/23/14 12:27	1
2-Hexanone	ND		25		ug/Kg			01/23/14 12:27	1
4-Methyl-2-pentanone (MIBK)	ND		25		ug/Kg			01/23/14 12:27	1
Acetone	ND		25		ug/Kg			01/23/14 12:27	1
Benzene	ND		5.0		ug/Kg			01/23/14 12:27	1
Bromodichloromethane	ND		5.0		ug/Kg			01/23/14 12:27	1
Bromoform	ND		5.0		ug/Kg			01/23/14 12:27	1
Bromomethane	ND		5.0		ug/Kg			01/23/14 12:27	1
Carbon disulfide	ND		5.0		ug/Kg			01/23/14 12:27	1
Carbon tetrachloride	ND		5.0		ug/Kg			01/23/14 12:27	1
Chlorobenzene	ND		5.0		ug/Kg			01/23/14 12:27	1
Dibromochloromethane	ND		5.0		ug/Kg			01/23/14 12:27	1
Chloroethane	ND		5.0		ug/Kg			01/23/14 12:27	1
Chloroform	ND		5.0		ug/Kg			01/23/14 12:27	1
Chloromethane	ND		5.0		ug/Kg			01/23/14 12:27	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg			01/23/14 12:27	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg			01/23/14 12:27	1
Cyclohexane	ND		5.0		ug/Kg			01/23/14 12:27	1
Dichlorodifluoromethane	ND		5.0		ug/Kg			01/23/14 12:27	1
Ethylbenzene	ND		5.0		ug/Kg			01/23/14 12:27	1
1,2-Dibromoethane	ND		5.0		ug/Kg			01/23/14 12:27	1
Isopropylbenzene	ND		5.0		ug/Kg			01/23/14 12:27	1
Methyl acetate	ND		5.0		ug/Kg			01/23/14 12:27	1
Methyl tert-butyl ether	ND		5.0		ug/Kg			01/23/14 12:27	1
Methylcyclohexane	ND		5.0		ug/Kg			01/23/14 12:27	1
Methylene Chloride	ND		5.0		ug/Kg			01/23/14 12:27	1
Styrene	ND		5.0		ug/Kg			01/23/14 12:27	1
Tetrachloroethene	ND		5.0		ug/Kg			01/23/14 12:27	1
Toluene	ND		5.0		ug/Kg			01/23/14 12:27	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg			01/23/14 12:27	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg			01/23/14 12:27	1
Trichloroethene	ND		5.0		ug/Kg			01/23/14 12:27	1
Trichlorofluoromethane	ND		5.0		ug/Kg			01/23/14 12:27	1
Vinyl chloride	ND		5.0		ug/Kg			01/23/14 12:27	1
Xylenes, Total	ND		10		ug/Kg			01/23/14 12:27	1

TestAmerica Buffalo

QC Sample Results

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-162927/7

Matrix: Solid

Analysis Batch: 162927

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		71 - 125		01/23/14 12:27	1
1,2-Dichloroethane-d4 (Surr)	95		64 - 126		01/23/14 12:27	1
4-Bromofluorobenzene (Surr)	99		72 - 126		01/23/14 12:27	1

Lab Sample ID: LCS 480-162927/6

Matrix: Solid

Analysis Batch: 162927

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	50.0	47.1		ug/Kg		94	73 - 126
1,1-Dichloroethene	50.0	45.7		ug/Kg		91	59 - 125
1,2-Dichlorobenzene	50.0	48.4		ug/Kg		97	75 - 120
1,2-Dichloroethane	50.0	49.5		ug/Kg		99	77 - 122
Benzene	50.0	47.1		ug/Kg		94	79 - 127
Chlorobenzene	50.0	46.7		ug/Kg		93	76 - 124
cis-1,2-Dichloroethene	50.0	48.2		ug/Kg		96	81 - 117
Ethylbenzene	50.0	46.9		ug/Kg		94	80 - 120
Methyl tert-butyl ether	50.0	50.4		ug/Kg		101	63 - 125
Tetrachloroethene	50.0	44.9		ug/Kg		90	74 - 122
Toluene	50.0	45.9		ug/Kg		92	74 - 128
trans-1,2-Dichloroethene	50.0	46.4		ug/Kg		93	78 - 126
Trichloroethene	50.0	44.4		ug/Kg		89	77 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	98		71 - 125
1,2-Dichloroethane-d4 (Surr)	98		64 - 126
4-Bromofluorobenzene (Surr)	103		72 - 126

TestAmerica Buffalo

FOIL199453
1/24/2014

QC Association Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

GC/MS VOA

Analysis Batch: 162927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53428-7	TW-1	Total/NA	Solid	8260C	162943
480-53428-8	TW-2	Total/NA	Solid	8260C	162943
480-53428-9	TW-3	Total/NA	Solid	8260C	162943
480-53428-10	TW-4	Total/NA	Solid	8260C	162943
LCS 480-162927/6	Lab Control Sample	Total/NA	Solid	8260C	
MB 480-162927/7	Method Blank	Total/NA	Solid	8260C	

Prep Batch: 162943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53428-7	TW-1	Total/NA	Solid	5035A	
480-53428-8	TW-2	Total/NA	Solid	5035A	
480-53428-9	TW-3	Total/NA	Solid	5035A	
480-53428-10	TW-4	Total/NA	Solid	5035A	

General Chemistry

Analysis Batch: 162976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-53428-7	TW-1	Total/NA	Solid	Moisture	
480-53428-8	TW-2	Total/NA	Solid	Moisture	
480-53428-9	TW-3	Total/NA	Solid	Moisture	
480-53428-10	TW-4	Total/NA	Solid	Moisture	

Lab Chronicle

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Client Sample ID: TW-1

Date Collected: 01/16/14 09:30

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-7

Matrix: Solid

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			162943	01/23/14 10:41	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	162927	01/23/14 16:03	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	162976	01/23/14 12:56	PJQ	TAL BUF

Client Sample ID: TW-2

Date Collected: 01/16/14 11:45

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-8

Matrix: Solid

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			162943	01/23/14 10:41	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	162927	01/23/14 16:29	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	162976	01/23/14 12:56	PJQ	TAL BUF

Client Sample ID: TW-3

Date Collected: 01/16/14 14:00

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-9

Matrix: Solid

Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			162943	01/23/14 10:41	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	162927	01/23/14 16:55	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	162976	01/23/14 12:56	PJQ	TAL BUF

Client Sample ID: TW-4

Date Collected: 01/16/14 15:25

Date Received: 01/17/14 01:00

Lab Sample ID: 480-53428-10

Matrix: Solid

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			162943	01/23/14 10:41	PJQ	TAL BUF
Total/NA	Analysis	8260C		1	162927	01/23/14 17:21	CDC	TAL BUF
Total/NA	Analysis	Moisture		1	162976	01/23/14 12:56	PJQ	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-14

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica Buffalo

Method Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: CHA Inc
Project/Site: Solvents and Petroleum

TestAmerica Job ID: 480-53428-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-53428-7	TW-1	Solid	01/16/14 09:30	01/17/14 01:00
480-53428-8	TW-2	Solid	01/16/14 11:45	01/17/14 01:00
480-53428-9	TW-3	Solid	01/16/14 14:00	01/17/14 01:00
480-53428-10	TW-4	Solid	01/16/14 15:25	01/17/14 01:00

Chain of Custody Record

Client Information		Sampler: <u>Merrick/Gilbert</u>		Lab PM: <u>Gray-Erdmann, Peggy J</u>		Carrier Tracking No(s):		COC No: <u>480-43507-11762.1</u>	
Client Contact: <u>Katie Flood - Merrick</u>		Phone: <u>315 380 7331</u>		E-Mail: <u>peggy.gray-erdmann@testamericainc.com</u>		Page 1 of 1		Job #:	
Company: <u>CHA Inc</u>		Address: <u>441 South Salina Street</u>		City: <u>Syracuse</u>		State, Zip: <u>NY, 13202</u>		Phone: <u>8423 2010.44000</u>	
Email: <u>kflood@chacompanies.com</u>		Project #: <u>48004389</u>		SSOW#: <u>10 day</u>		Due Date Requested:		Analysis Requested	
Project Name: <u>Solvents and Petroleum</u>		Site:		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		6010C, 6020A, SM2340B	
5M5310D - Total Organic Carbon		8260C - (MOD) List for MW-4R		SM4500_52_D - Sulfide		353.2, 353.2, Nitrite, D516, Nitrate, Calc, SM4500_C1_E		310.2 - Alkalinity, Total	
3500_Fe, D - Ferrous Iron		VOCs 8260		8260 (8021-654)		31013 TPH fingerprint		Total Number of containers	
Special Instructions/Note:		31013 Sampled 13:35		MW-1S, MW-4R		6-w samples have project specific RLS			
MW-1S		11/16/14		1200		G		Water	
MW-4R		11/16/14		1522		G		Water	
TW 1		11/16/14		1320		G		Water	
TW 2		11/16/14		1400		G		Water	
TW 3		11/16/14		1530		G		Water	
TW 4		11/16/14		930		G		Soil	
TW 1		11/16/14		1145		G		Soil	
TW 2		11/16/14		1400		G		Soil	
TW 3		11/16/14		1525		G		Soil	
TW 4		11/16/14		1525		G		Soil	
TSP Blank		11/16/14		17:00		C-TA		17:00	
Relinquished by: <u>Katie Flood</u>		Date/Time: <u>11/16/14</u>		Company: <u>CHA Inc</u>		Received by: <u>Katie Flood</u>		Date/Time: <u>11/16/14</u>	
Relinquished by: <u>RE</u>		Date/Time: <u>11/16/14</u>		Company: <u>CHA Inc</u>		Received by: <u>RE</u>		Date/Time: <u>11/16/14</u>	
Relinquished by: <u>RE</u>		Date/Time: <u>11/16/14</u>		Company: <u>CHA Inc</u>		Received by: <u>RE</u>		Date/Time: <u>11/16/14</u>	
Custody Seal Intact: <u>Yes</u>		Custody Seal No.: <u>37 3.5 #2</u>		Cooler Temperature(s) °C and Other Remarks:		37 3.5 #2			

Login Sample Receipt Checklist

Client: CHA Inc

Job Number: 480-53428-2

Login Number: 53428

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert K

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	CHA
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

